What is claimed is:

1. A thin film magnetic head comprising:

first and second magnetic layers magnetically coupled to each other and having first and second pole tip portions placed so as to face a recording medium in conjunction with being in contact with a gap layer and being opposed to each other as sandwiching the gap layer;

a thin film coil disposed in a space between the first and second magnetic layers; and

an insulating layer embedding the thin film coil in the space between the first and second magnetic layers, wherein:

at least the first pole tip portion is made of a plating film; and

the gap layer is constructed of a non-magnetic conductive material.

2. A thin film magnetic head according to claim 1, wherein the gap layer is constructed of the non-magnetic conductive material on which an etching speed through ion milling is within a range extending from being higher than 0.5 times to being no more than 2 times of an etching speed on the second magnetic layer.

3. A thin film magnetic head according to claim 1, wherein the gap layer is constructed of one out of a group consisting of copper (Cu), chromium (Cr), tantalum (Ta), aluminum (Al), gold (Au), niobium (Nb), tungsten (W), ruthenium (Ru), molybdenum (Mo), beryllium (Be), nickel

copper (NiCu), nickel chromium (NiCr), nickel phosphorus (NiP) and beryllium copper (BeCu), or an alloy including at least the one out of the group.

4. A thin film magnetic head according to claim 2, wherein the gap layer is constructed of one out of a group consisting of copper (Cu), chromium (Cr), tantalum (Ta), aluminum (Al), gold (Au), niobium (Nb), tungsten (W), ruthenium (Ru), molybdenum (Mo), beryllium (Be), nickel copper (NiCu), nickel chromium (NiCr), nickel phosphorus (NiP) and beryllium copper (BeCu), or an alloy including at least the one out of the group.

5. A thin film magnetic head according to claim 1, wherein the first magnetic layer including the first pole tip portion is constructed of the plating film as a single layer.

6. A thin film magnetic head according to claim 2, wherein the first magnetic layer including the first pole tip portion is constructed of the plating film as a single layer.

7. A thin film magnetic head according to claim 3, wherein the first magnetic layer including the first pole tip portion is constructed of the plating film as a single layer.

8. A thin film magnetic head according to claim 4, wherein the first magnetic layer including the first pole tip portion is constructed of the plating film as a single layer.

9. A method of manufacturing a thin film magnetic head comprising:

first and second magnetic layers magnetically coupled to each other and having first and second pole tip portions placed so as to face a recording medium in conjunction with being in contact with a gap layer and being opposed to each other as sandwiching the gap layer;

a thin film coil disposed in a space between the first and second magnetic layers; and

an insulating layer embedding the thin film coil in the space between the first and second magnetic layers,

wherein the method comprises:

a step of forming the gap layer with a non-magnetic conductive material; and

a step of selectively forming at least the first pole tip portion on the gap layer by growing a plating film with the gap layer used as an electrode.

10. A method of manufacturing a thin film magnetic head according to claim 9, further including a step of selectively etching the gap layer through ion milling by using at least the first pole tip portion as a mask and, subsequently, selectively etching the second magnetic layer to a predetermined depth.

11. A method of manufacturing a thin film magnetic head according to claim 9, wherein a material on which an etching speed through ion milling is within a range extending from being higher than 0.5 times to being no more than 2 times of an etching speed on the second magnetic layer is used as the non-magnetic conductive material.

12. A method of manufacturing a thin film magnetic head according to claim 10, wherein a material on which an etching speed through ion milling is within a range extending from being higher than 0.5 times to being no more than 2 times of an etching speed on the second magnetic layer is used as the non-magnetic conductive material.

13. A method of manufacturing a thin film magnetic head according to claim 9, wherein one out of a group consisting of copper, chromium, tantalum, aluminum, gold, niobium, tungsten, ruthenium, molybdenum, beryllium, nickel copper, nickel chromium, nickel phosphorus and beryllium copper, or an alloy including at least the one out of the group is used as the non-magnetic conductive material.

14. A method of manufacturing a thin film magnetic head according to claim 10, wherein one out of a group consisting of copper, chromium, tantalum, aluminum, gold, niobium, tungsten, ruthenium, molybdenum, beryllium, nickel copper, nickel chromium, nickel phosphorus and

beryllium copper, or an alloy including at least the one out of the group is used as the non-magnetic conductive material.

15. A method of manufacturing a thin film magnetic head according to claim 11, wherein one out of a group consisting of copper, chromium, tantalum, aluminum, gold, niobium, tungsten, ruthenium, molybdenum, beryllium, nickel copper, nickel chromium, nickel phosphorus and beryllium copper, or an alloy including at least the one out of the group is used as the non-magnetic conductive material.

16. A method of manufacturing a thin film magnetic head according to claim 12, wherein one out of a group consisting of copper, chromium, tantalum, aluminum, gold, niobium, tungsten, ruthenium, molybdenum, beryllium, nickel copper, nickel chromium, nickel phosphorus and beryllium copper, or an alloy including at least the one out of the group is used as the non-magnetic conductive material.

17. A method of manufacturing a thin film magnetic head according to claim 9, wherein the first magnetic layer including the first pole tip portion is formed of the plating film as a single layer.

18. A method of manufacturing a thin film magnetic head according to claim 10, wherein the first magnetic layer including the first pole tip portion is formed of the plating film as a single layer.

19. A method of manufacturing a thin film magnetic head according to claim 11, wherein the first magnetic layer including the first pole tip portion is formed of the plating film as a single layer.

20. A method of manufacturing a thin film magnetic head according to claim 12, wherein the first magnetic layer including the first pole tip portion is formed of the plating film as a single layer.

21. A method of manufacturing a thin film magnetic head according to claim 13, wherein the first magnetic layer including the first pole tip portion is formed of the plating film as a single layer.

22. A method of manufacturing a thin film magnetic head according to claim 14, wherein the first magnetic layer including the first pole tip portion is formed of the plating film as a single layer.

23. A method of manufacturing a thin film magnetic head according to claim 15, wherein the first magnetic layer including the first pole tip portion is formed of the plating film as a single layer.

24. A method of manufacturing a thin film magnetic head according to claim 16, wherein the first magnetic layer including the first pole tip portion is formed of the plating film as a single layer.